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ABSTRACT

This brief biographical sketch of Maria Montessori focuses on her philosophy of learning and her methods of teaching. Her holistic approach to education is discussed in the light of its impact on educational theories and practices in the early 1900s. Included in this discussion is a description of her theories, such as the developmental stages of children and the psychology of pedagogy. The positive applications and influence of Montessori's work is considered as well as some of the negative aspects of her theories. (JD)

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Maria Montessori - A Biography

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Maria Montessori is the name of an educational theorist which has survived since the beginning of the 20th century--a century of two world wars, numerous regional wars revolutionary changes in economy, technology, and educational reform in various countries throughout the world. A theorist, who had been hailed as an international genius in her day, had experienced over time a loss of popularity in some countries (e.g. the United States): a considerable amount of such popularity was regained, however, but it never reached the popular peak experienced in earlier years. In spite of this, though, Maria Montessori stands to be respected for her educational and social contributions, many of which were not necessarily, according to the literature, (Standing, 1962) intended as her primary focus.

Her diversified educational background, personal experiences, and influential figures in her life helped her to develop a profound sensitivity to the importance of intense observation of and consideration for the individual. (Kramer, 1976)(Standing, 1966) As a result of such observation, Maria Montessori discovered that children different and have high qualities than those we usually attribute to them. (Standing, 1962) Some of these include: amazing mental concentration, love of repetition, love for order, freedom of choice , preference for work to play, no need for rewards and punishment, lovers of silence, children refuse sweets, sense of personal dignity, explosion into writing, discovery of reading, spontaneous self-discipline, cosmic discipline. (Kramer, 1976) (Standing, 1962)

In addition to the above, Montessori is credited with recognizing the fundamental difference between the child and adult. She views the child as being in a continual state of growth and metamorphosis whereas the adult has reached the 'morn of the species'. (Standing, 1962) (Montessori, 1966)(Montessori, 1983)(Montessori, 1967 (a))(Montessori, 1967(b)). Montessori speaks of an holistic metamorphosis -- a transformation which involves physical, mental, social aspects of development.

Montessori is also known for her Law of Development: She indicates that a child would most successfully flourish in a "...prepared environment in which the child, set free from undue adult intervention, can live its life according to the laws of development." (Standing, 1962 p. 118.)

Many think that Montessori's most valuable contribution to education is this doctrine of sensitive periods because of the practical results (Standing, 1966) (Montessori, 1976). Montessori describes the 'essence' of sensitive periods as 'burning intellectual love' a 'drama between child and his environment' (Standing,1962)(Standing, 1966). She indicated that when education is organized in relation to sensitive periods, children work with sustain enthusiasm and effort.

What distinguishes Montessori's method from other activity methods today is her emphasis on precision, order, discipline, impersonal nature of criticism, e.g. the directress demonstrates the correct form without singling out the perpetrator; she places her cup down quietly. (Montessori, 1967(b)) (Montessori, 1973(b).

Another distinction of the Montessori method is that of a holistic approach to learning -- involvement of physical, mental, and moral aspects; she encourages the incorporation of sweeping, dusting, washing, cleaning which she refers to as the 'exercises of practical life' (Standing, 1962).

The impact of Maria Montessori's philosophy and educational methodology is profound. It appears, at least to the writer's eye, that even those (herself not excluded) who are able to negatively criticize certain aspects of Maria's work, have alleged, at least partially, that she was a brilliant woman of her day who contributed much to the educational, social, and psychosocial processes.

Maria Montessori is the name of an educational theorist which has survived since the beginning of the 20th century--a century of two world wars, numerous regional wars revolutionary changes in economy, technology, and educational reform in various countries throughout the world. A theorist, who had been hailed as an international genius in her day, had experienced over time a loss of popularity in some countries (e.g. the United States); a considerable amount of such popularity was regained, however, but it never reached the popular peak experienced in earlier years. In spite of this, though, Maria Montessori stands to be respected for her educational and social contributions, many of which were not necessarily, according to the literature, (Standing, 1962) intended as her primary focus.

The writer will present a biographical sketch of this important theorist, Maria Montessori. She will then discuss both the educational concepts and the impact this woman left not only in her own country but throughout the world.

Maria Montessori, an only child, was born on August 31, 1870, the year Italy became a united nation, in the province of Ancona. She was born into wealth. Her father, Alessandro Montessori descended from noble family from Bologna. Her mother, Renilde Stoppani, was niece of the illustrative Antonio Stoppani, the great philosopher scientist priest to whom the University of Milan erected a monument. (Standing, 1962) (Kramer, 1976). Maria is said to have had her mother's temperament. She and her mother had a very close relationship; it was, at least in part, due to her mother's unyielding support and encouragement that Maria proceeded on her endeavored tasks to do and become what was unheard of for most women in her day. (Kramer, 1976)(Standing, 1962).

Maria's personality was not that which is sometimes stereotyped as being an only child's: selfish, possessive, demanding. Instead Maria is described as being sensitive and caring. As a young child she knitted for the poor and always stood up for the underdog. Even as a small child she asserted herself in the name of peace and harmony in her family. An example cited in the literature (Standing, 1962) was Maria's joining of her parents' hands together following a parental debate.

Maria's education commenced in Ancona where she attended a state day school. She was required to perform numerous memorization tasks e.g. lives of famous woman. Maria thought this boring and not particularly fulfilling. Whenever she made comments, of course with courtesy and respect, she was affected by disparaging remarks from her teacher. Needless to say, when Maria was asked if she'd like to be a teacher when she grew up, her response was, "Oh no, I shall never be that. I care too much for the children of the future to add another biography to the list." (Standing, 1962 p. 23)

When Maria was twelve, her parents moved to Rome so that she could receive a better education. At age fourteen, because she excelled in math, her interests veered toward engineering. She attended a technical school for boys. (since engineering was not considered a career for females). Her interests expanded also including an intense interest in biology. It was at this juncture that Maria decided to study medicine much to the horror of her superiors who thought this a preposterous choice. Even her father agreed. Only Maria's mother supported her individualism and assertiveness in response to the Board of Education's response indicating that it was impossible for a woman to attend medical school. Maria politely informed the members of the board that she would be a doctor of medicine.

A recipient of numerous scholarships, Maria was the first woman medical student in Italy. (She was awarded her Doctor in Medicine and surgery in 1896.) The atmosphere was anything but friendly. The students passed snide sexist remarks. As though this were not enough unpleasantly, Maria was forced to examine a cadaver by herself apart from the men. In spite of this negative treatment and partiality, she persevered for a time. Maria was especially impressed and influenced by Achille de Giovanni, the physician and medical educator who emphasized the study of the individual stressing the observation of pathology.(Kramer, 1976) Being human, she experienced days when she felt 'down'. On one such day, while she was walking home through Pincio Park, she met up with a beggar and child. The child's enthusiasm (Standing, 1962) was so contagious, that Maria entertained thoughts about helping children.

As a medical student, Montessori served as an intern in the psychiatric clinic of Rome where she worked with 'idiot children' (Standing, 1962). Her success surpassed expectations as her students, who were highly motivated, absorbed their lessons well. In the writer's judgement, these children received what we speak of today as an holistic education as Maria employed multimodal/multi sensory approaches.

Maria Montessori considered herself a student of Itard and Sequin whose work she admired. Dr. Sequin (1812-1880) founded a school for inefficients and later moved to the United States where he founded an institution for defectives. Itard, who made a study of deaf mutes, lived during the French Revolution. He modified materials used for normal children and adapted them (1844) for education mentally deficient children. Jean Itard (1775-1838) is known for his attempts at educating the "wild Boy of

Aveyron". It should also be mentioned that Montessori's thinking was also influenced by the ideas of educators Froebel, (Froebel society found in 1875/spread kindergarten philosophy), Pestalozzi,(training through the senses), and Rousseau. (Standing, 1962) (Kramer, 1976). Montessori never believed, like Rousseau, that all civilization corrupts the child. On the contrary, she believed that work was the systematic mastery of the environment--that this met an important need of the developing human being. (Montessori, M. Mario,1976) (Standing, 1962).

At age twenty-eight, Maria became directress of a tax-supported school for defective children. She developed materials and methods for this population and devoted her time to these children--as many as thirteen hours a day. Her efforts were not in vain because her children passed the exam required to receive primary certificates. (This was the average level of educational attainment for Italian citizens of this age.)

In 1907, Maria focused on developing educational skills in slum children in the San Lorenzo district. (Standing, 1962). The years devoted to the San Lorenzo experiment (1907-8) formed a landmark in Montessori's career as described later. (Standing, 1962). She was influenced by the Italian anthropologist . Cedsare Lombroso, who began his career as as a physician and surgeon. He believed in the biological basis of criminology--in the existence of born criminal types. (Kramer, 1976). Maria received support from the Roman Association for Good Buildings. They were motivated by the hope that keeping unruly young children off the streets would prevent vandalism and save damage to their property.

The above experiences marked the beginning of a new social educational movement. Society became curious and were inspired by intrigue with

Montessori's new way of handling problematic individuals. In 1909, Montessori, in partial response to this public curiosity, published her Scientific Pedagogy as applied to Child Education in the Children's Houses: the latter was a term coined by Maria: Casa dei Bambini. (Montessori, Mario, 1776) (Standing, 1962) (Kramer, 1976).

Her teaching became a model and people came from all over the world to hear her. Americans were among the first to become interested. She reached the height of her fame at the end of 1913. The period of social reform created conditions which were 'ripe' for the acceptance of Montessori's ideas. The positive reinforcement may be said to have had a pronounced influence which impacted on her work. Such positive feedback came from the voice of the reform movement in America. For example, the "muck-rakers' and the progressive republicanism of Theodore Roosevelt was high. Articles such as "Shame of Cities: were published in McClure's Magazine. In the educational scene John Dewey's (1900, 1902) attempts to make the school an instrument of progress and social reform were felt. One half century of activity of Froebel Society and one-quarter century of Stanley Hall's Child Study movement had prevailed. Jenny Merrill described Montessori's work in 1910 issues of Kindergarten Primary Magazine. Further publicity of her work was given by progressive minded people who were interested in her work e.g. Thomas Edison (who invited Maria as a houseguest), Alexander Graham Bell, McClure, Dorothy Canfield Fisher (1912) and Ellen Yale Stevens (1915). The New York Times devoted pages to interviews. She was hailed as the Prophet of Pedagogy -- a major force for wide social reforms.(Montessori, M. M..1976) (Hunt,1964).

Before her death at the age of 81 (1952) in Noordnijk in Holland, Maria Montessori's work had be acclaimed in numerous countries throughout the world. A thumb nail sketch of some of the more significant happenings in this regard are as follows:

International Montessori Congress at: Helsinki (1925) Nice(1930), Amsterdam (1933), Rome (1934), Oxford (1936), Copenhagen (1937), Edinburgh (1938), London (1951) (after her death 10th one was organized by French Montessori [illegible] sponsored by the French government in Paris).

Received an honorary doctoral of [illegible] in England in 1923

Training course in Madras, India in 1939; she was awarded scholarships, grantsmanships at the Educational Institute of Scotland/ met with Ghandi, Nehru and Tagore

Presented first course in Pakistan in 1949

Invited to address a gathering at UNESCO in 1949

Lecture tour in Norway and Sweden, Italy, Holland (received by Queen Wilhelmina / received honory Doctor of Philosophy degree from University of Amsterdam (Hunt, 1964) (Montessori, Mario, 1976)

Montessori's son, Mario, whom she appointed as her successor coordinated and perpetuated work of his 'devoted Mammolini' (Standing, 1962).

In order to fully appreciate Maria Montessori's contributions to education, the writer believes it is of utmost importance to consider her philosophy with respect to children as human beings, as citizens. It is this consideration which seems to have provided the bases for her educational teaching strategies, materials, and environment.

Her diversified educational background, personal experiences, and influential figures in her life helped her to develop a profound sensitivity to the importance of intense observation of and consideration for the individual. (Kramer, 1976) (Standing, 1966). As a result of such observation, Maria Montessori discovered that children have different and

higher qualities than those we usually attribute to them. (Standing, 1962) Some of these include: amazing mental concentration, love of repetition, love for order, freedom of choice , preference for work to play, no need for rewards and punishment, lovers of silence, children refuse sweets, sense of personal dignity 'explosion: into writing, discovery of reading, spontaneous self-discipline, cosmic discipline.(Kramer, 1976) (Standing, 1962)

In addition to the above, Montessori is credited with recognizing the fundamental difference between the child and adult. She views the child as being in a continual state of growth and metamorphosis whereas the adult has reached the 'morn of the species'. (Standing, 1962) (Montessori, M.,1966) (Montessori, M., 1967a) (Montessori, M., 1967b) (Montessori, M.,1983). Montessori speaks of an holistic metamorphosis -- a transformation which involves physical, mental, social aspects of development. She outlines stages of development as follows:

First Stage: 0-6 years /Period of Transformation divided into: a) 0-3 years: The Absorbent Mind (unconscious)
b) 3-6 years: The Absorbent Mind (conscious)

Second Stage: 6-12 years: A period of uniform growth, an intermedial period or 2nd stage of childhood

Third Stage: 12-18 years: A period of transformational-subdivided, as in Stage one into:
a) 12-15: Puberty
b) 15-18: Adolescence

(Montessori, M., 1967a) (Montessori, M., 1973a) (Montessori, M., 1973b)

Montessori is also known for her Law of Development: She indicated that a child would most successfully forish in a "...prepared environment in which the child, set free from undue adult intervention, can live its life according to the laws of development." (Standing, 1962, p. 118)

According to Montessori periods of a child's growth are characterized by what she refers to as 'sensitive periods of development' (This term is said to have been first used by a famous Dutch biologist, Hugo de Vries. (Standing, 1962) (Montessori, M., 1967b). Montessori maintains that conditions in a particular sensitivity period are 'ripe' for specified kinds of learning -- attempts at teaching specific concepts at a later period of development may prove to be either ineffective or unfavorable. (Montessori, M., 1983) (Standing, 1966). Her thinking stems largely from her knowledge of biology: organisms (e.g. butterfly) at different stages of development manifest irresistible impulses which permit them to extract from their environment those nutrients (literally and figuratively) which enable them to survive. (Standing, 1962).

Montessori views a child's work, as indicated earlier, as a necessary part of surviving, of coping with his environment. The process, she maintains, is self-perpetuating in that the process of solving problems is stimulating and rewarding for the child; he/she feels a sense of power. Consequently, he feels the opposite of fatigued. Hence, Montessori refers to a flame that burns without consuming. (Standing, 1962) (Montessori, M., 1973b)

Some of her described sensitivity periods include:

Sensitive Period in Human Development--time when so-called psychic aptitudes are developed (never to return)

Sensitive Period for Language-time when language is learned without conscious effort

Sensitive Period for Order-reached in 2nd year/lasts for about two years/ appreciates the familiar and having specific locations for possessions

(Montessori, M., 1965) (Standing, 1966)

There is a psychological significance of the Sensitivity Period which differs from that of an adult e.g. An adult feels a sense of conformfort as it aids efficiency. However, a small child cannot live in disorder--order for him is a need of life; if order is upset it could disturb him to the point of illness. (Montessori, M., 1983)

Sensitive Period for Order and Game of Hide and Find (The writer sees this as likened to Piaget's Period of Object Constancy

Sensitive Period for Refinement of the Senses: color, sound, shape, textured tiles and memory forms

Sensitive Period for Learning Good Manners: ages two and one-half to six

(Montessori, M., 1965) (Standing, 1966)

Many think that Montessori's most valuable contribution to education is this doctrine of sensitive periods because of the practical results. (Standing, 1966) (Montessori, M. M., 1976) Montessori describes the 'essence' of sensitive periods as 'burning intellectual love' a 'drama between child and his environment'. (Standing, 1962) (Standing, 1966) She indicated that when education is organized in relation to sensitive periods, children work with sustained enthusiasm and effort. Children may learn in a few week's time that might have taken months learned at the tempo of ordinary class teaching.(Standing, 1962) Montessori specified that free and normal children tend to learn in spurts or 'saltations', to use her term. She feels that it is unfortunate that there is a common assumption that the child learns more or less the same amount every day. (Standing, 1966) [The writer has much to say, (to critique), about the sensitive periods but will reserve such reactions to the last section of this paper.]

What distinguishes Montessori's method from other activity methods today is her emphasis on precision, order, discipline, impersonal nature of criticism. e.g. the directress demonstrates the correct form without singling out the perpetrator; she places her cup down quietly. (Montessori, M., 1967b) (Montessori, M., 1973b)

Another distinction of the Montessori method is that of a holistic approach to learning -- involvement of physical, mental, and moral aspects: she encourages the incorporation of sweeping, dusting, washing, cleaning which she refers to as the 'exercises of practical life' (Standing, 1962)

Montessori emphasizes the importance of analyzing movement, of sequencing tasks breaking each down into small component parts or actions e.g. 1) approach door 2) raise 3) turn handle 4) pull door etc. She also stressed movement as an important concomitant part of the learning process; motor forces and psychic life must be intertwined. Montessori asserted that an object (goal) should be placed just out of reach but within reach by 'stretching the mind'. (Standing, 1962) (Montessori, M. M., 1976)

The above are among the most important of Montessori's educational concepts according to the writer. As indicated her ideas, in spite of having created a certain amount of controversy over the years, flourished to a peak, dwindled to a point of becoming nearly 'out of sight in some countries (like the United States, only to [illegible] receptive intrigue of years ago.

The impact of Maria Montessori's philosophy and educational methodology has been profound. It appears, at least to the writer's eye, that even those (herself not excluded) who are able to negatively criticize certain aspects of Maria's work, have alleged, at least partially, that she was a brilliant woman of her day who contributed much to the educational, social, and psychosocial processes.

In the writer's judgement, much of the negative controversy resulted from a misunderstanding of Montessori's philosophy. This might have been

attributed to, at least partially, to several factors including insufficient amount of reading, incorrect interpretation, incomplete observation (and a lack of discourse concerning it), poorly trained personnel, incorrect atmosphere (environment), incorrect implementation of the Montessori Method. Even at the exclusion of the former, some, in the writer's opinion, criticism remains valid based upon logic and experience.

First, the positive application and/or influence of Montessori's work in education will be discussed followed by criticism of her ideas. To assert the positive, it should be reaffirmed that Maria Montessori is looked upon as the representative and interpreter of a great social movement which centered, and still centers, around the child. (Standing, 1966) (Kramer, 1976) (Montessori, M., 1983) She appealed to the spirit stressing the importance of instilling in the minds of children the virtues of patience and humility instead of anger and pride. (Montessori, M., 1973a) (Standing, 1962) Hence, she stressed the early training of social skills needed to maintain a peaceful world. Since success encourages learning, the child, according to Montessori, must move at his own pace, gaining confidence through competence. To achieve the latter she emphasized the importance of the 'prepared environment
', a system not too dissimilar to today's programmed learning. (Standing,1962) (Montessori, M., 1967a) (Montessori, M., 1973a)

Montessori's ideas relevant to reading development and writing (mechanical act as well as form of expression) can be seen today not only in Montessori schools but in other nursery schools and public schools as well. (Fowler, 1970) Lahey, 1971) The influence can be seen beyond the classroom; her methodology, or at least adaptations of it, is incorporated

in special education practices as well. Her criterion for academic school readiness is utilized by many who may not have known of her existence. (Farrington, 1988) As a speech-language pathologist, the writer is impressed with Montessori's holistic multisensory approach to language learning. She integrates reading, speaking, and writing in a manner which has only recently been re-discovered, (Montessori, M., 1983) appreciated, and implemented in schools which permit flexibility, creativity, and experimentation in their schools. (Farrington, 1988) In addition, the writer sees some of Montessori ideas as those which are utilized in today's testing process. She discusses the elements involved in the written and oral language comprehension process such as perception, recognition, and expression. (Standing, 1966)

Another area where Montessori's ideas may be said to have had some influence is that of testing. Currently, at least, it seems to be a consensus of modern educators that standardized and conventional type testing do not necessarily provide the most valid assessment of one's knowledge. A more holistic method of evaluating is hailed by numerous educators (especially by those in the field of special education). She indicated that the pedagogic instrument should be based on the psychical manifestation of the child. The mental test should not be established on the basis of external measurement; it should be a stimulus which is itself determined by psychical reactions. (Montessori, 1965)

The Montessori Schools today still incorporate much of Montessori's methodology and materials, (Farrington, 1988) however, there are vast variations as to the authenticity throughout the world. (Hartley, Frank, & Goldenson, 1952) (Montessori, M., 1983) Having interviewed a director and

teacher from a Montessori school in her county in the state of New Jersey, the writer learned that a two year (or comparable) training program is still required for every employee. (Farrington, 1988) One of the most important features of Montessori's life's work was the establishment of international training courses. (Standing, 1962) (Montessori, M. M., 1976) (Kramer, 1976) Each course, six months in length, was composed of three main elements 1) her own lectures: psychological principles (based upon observations of children), nature and purpose of didactic or teaching materials 2) more complete systematic study of didactic materials and 3) making several visits to recognized Montessori Schools (50 hr.) Additional requirements included the reading several books about her materials, pass oral and written exams. Upon the successful completion of the above, they were granted a Montessori Diploma signed by Montessori herself. (Kramer, 1976) (Standing, 1962) The courses were called International because they were attended by representatives from as many as 30-40 different nationalities. Today American and International Montessori Associations are still prevalent.

Observations during a tour of the Montessori school and three other schools revealed extensive use of Montessori type apparatus for exploratory and formal learning of math, reading, physical activities, cooking, socialization could be seen. Generally, speaking, the writer saw happy vivacious children who appeared to be learning well and socializing successfully. Because of her training as a learning consultant, the writer could not help but to notice a few children who did not appear to be 'making it' socially, emotionally, or academically. When the writer inquired about these students, she was informed that a learning consultant comes in periodically to evaluate these students and adapt materials.

Before proceeding with a negative criticism of the above, the writer prefers to discuss a few more of the positives. Another positive is that of Montessori's keen perception of needs of adolescence . Again, it is important to reemphasize Montessori's view of some situations as being social rather than educational. She described the struggle between the adolescent and adult as a psychosocial problem. She regarded the teen as a sometime forgotten citizen who is misunderstood (Standing, 1962) Montessori emphasized the importance of giving the teen liberty and freedom to work as a means of achieving independence. (just as she advocated for the young child -- but even greater independence should be encouraged in this later stage of development. (Montessori, 1973a)

The Montessori approach might be said to have had a positive influence on psychotherapeutic technique (Montessori, M. M., 1976) e.g. allowing the patient (patient directed therapy) to provide the cues as to the appropriate time for the therapist to deal with a delicate topic. Since Montessori place prime emphasis on the establishment of rapport between directress and child (Standing, 1962), this factor, according to her son Mario, a psychotherapist, (Montessori, M. M., 1976) was incorporated in psychothrapeutic scene.

The writer wishes to express some negative criticism with respect to the sensitive 'psychic' period. (Montessori, M., 1973b) Perhaps the writer is interpreting Montessori too literally, but it would appear that she puts too much critical emphasis on sensitive periods: she seems to suggest that one is doomed if intervention or stimulation doesn't take place at the precise time. If this were the case, then we would have to forget about psychotherapy and remediation being of much benefit. (or the acquisition of

foreign languages, for that matter) Perhaps material might not be learned with the ease and spontaneity it might have at the precisely prescribed sensitive period, but it can be learned and learned well if an individual is intelligent, sufficiently motivated and has positive rapport with his/her teacher. The former statement reflects the writer's professional judgement based upon twenty years of professional experience with both the 'normal' and special education population.

Taking into consideration the sensitive periods as may pertain to the incidents observed in the Montessori classrooms by the writer,(indicated earlier) it can be speculated, perhaps, by Montessori followers that the children were not ready for the environment or perhaps the environment was not properly adapted for the child. It is feasible, perhaps, that the social readiness factor may only apply in the case of extroverted or ambiverted personalities and not necessarily introverted ones. It might also be possible that the phenomenon of learning disabilities, as opposed to readiness and mentally deficient, was not wholly realized in Montessori' time. It might be likely, for example, that one of the observed children might have been suffering from a figure-ground problem or a breakdown in the filter system which blocks out extraneous sensual stimuli.

It also might have been possible that the mentioned students, who were observed by the writer, had organizational difficulties and/or impairment in their conception of time. Such individuals need considerable structure and, in some instances, one-on-one attention as well.

Montessori speaks about the damage and or stress which could result from time-lines. (Montessori, M., 1973b) Without question certain individuals are predisposed to sensitivity to pressure and become systematic

and, in extreme cases, malfunctioning. Certain types of learning disabled children could not function well on timed test; test results for these children (on timed test) would be invalid. However, for the majority, a certain amount of stress is not only a catalyst for high level mental functioning but is a necessary part of life; therefore, (in the writer's professional judgement) the sooner children are conditioned to become gradually acclimated to the reality of today's world, perhaps, the better off they may be.

As indicated earlier some negative criticism resulted from a misunderstanding of Montessori's concepts. Maria was perceptive enough to have realized this and often stated that one of the greatest dangers is that her ideas might be misunderstood and misapplied. (Standing, 1962) (Montessori, M., 1966) Unfortunately, the casual observer and (educator, layman, 'nobleman' or parent) who has not read with accurate comprehension, might imply that the Montessori Method is a somewhat aimless type of progressive education the dictates of which allow children undisciplined freedom-- where children are permitted to lie around or create pandemonium doing whatever they want to do all the time. (Hunt, 1964) (Montessori, M., 1967b) This is unfortunate especially in lieu of the fact Montessori preached 'structured freedom'; she clarified that that does not mean doing anything he/she likes. She still continues to be misunderstood by many who believe that children in the Montessori school have freedom to run all over the place and do what they want and never work. Unfortunately even well known educational figures like John Dewey describe Montessori as being too rigid. This is ironic since Montessori, herself, preached about the importance of flexibility and adaptation of methodology to specific individual situations. (Montesori, Marie, 1976. Bruner has shown that the

'preoperational' child lacks the concept reversibility, a concept basic to the understanding fundamental ideas underlying math and physics: there, he maintained that it would be useless to introduce it at the preschool age. (Standing, 1962) (Kramer, 1976) Montessori, (1967b) did not intend that the children necessarily absorb sophisticated concept when she introduced specific stimulating materials. It was rather her intent that they become familiar with them; during progressive stages of development then, they would be able to apply more complex principles to the old familiar. (Hunt, 1964) (Montessori, 1965)

There were other conceptions which were dissonant with Montessori. One was the notion that school experience for three and four year olds was insignificant and had little to do with future development of the child. William Graham Sumner believes that the development of the individual organism was supposed to be predetermined by heredity. Then there was the belief in fixed intelligence (had its roots in Darwin's Theory of Evolution) and predetermined development. There was also the belief that all behavior was motivated by instincts or by painful stimuli or needs. In addition there was the traditional desire of teachers to maintain orderly classrooms for control of the educational process. A chief critic was William Heard Kilpatrick (1914) who was an eloquent lecturer at Teachers' College; he was known as the 'million dollar professor'. (Montessori, M., 1965) Standing, 1966)

In spite of Montessori's controvertiality, her influence is still felt; maybe not to such a great extent in the past when she had enthusiastic followers like Wilson and Parkhurst (Standing, 1962) during the turn of the century, but her influence (direct or indirect) continues to prevail both

horizontally and vertically (Montessori, M.M., 1976) Horizontally, Montessori schools and training institution are found throughout the world. Her books have been translated into twenty-two languages. Her approach is followed in homes, child care centers, in work in hospitals, the maladjusted, the crippled, in teaching the socially deprived and mentally retarded, and education of the blind. Vertically, the application of her ideas may be seen from the upbringing of infants to young adults of college age. (Montessori, M.M. 1976)

Montessori is a theorist who, above all, challenged the thinking of countless individuals throughout the world in the areas of education, human development and psychology. Perhaps as a combined result of the intense influences of her personal experiences, infatuation with the concepts of early and contemporary theorists, as well as her interdisciplinary background, she was able to see the need for maintaining the unification of man with his environment. Perhaps also as a result of the above, she was able to perceive the importance of recognizing individual needs (and rights) and unleashing individual potential for maintaining an harmonious existence socially and with ones' internal and external 'worlds'.

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